

## Asia-Pacific Diesel Sulphur Matrix

COUNTRY	Sulphur Level (max, ppm) Diesel	COMMENT	Source
Afghanistan	10,000	No standards or ongoing plans	MW
Bangladesh	5,000	The country adopted Bangladesh 1 and 2 emission standards in line with the Euro emission norms (Euro 1 and 2) in March 2006.	CAI-Asia, cse.polyu.edu.hk
Bhutan	500	Euro 2 Vehicle emission standards came into force in March 2008. Import licenses only given for vehicles that meet the Euro 2 standards or above.	kuenselonline.com
Brunei Darussalam	1,000		ASCOPE
Cambodia	1,500	Formal emission standards for petrol and diesel fuels exist. Emission standards for 2 and 4 stroke motorcycles and vehicles are provided for under Cambodian law.	CAI-Asia
China (nationwide)	2000	Average commonly in-use Fuel is between 600-1000ppm whilst legal maximum is 2000 ppm. Plans to adopt Euro 3 (350ppm) and perhaps Euro 4 (50ppm) emission standards by 2010.	dieselnet.com
China (Beijing)	50	Plans to adopt Euro 5 emission standards by 2012 (Fuel sulphur level 10ppm)	dieselnet.com
China Hong Kong	50	Plans to adopt Euro 5 emission standards are under discussion (Fuel sulphur level at 10ppm)	dieselnet.com
China, Macao Sar	50	The Government passed an Administrative Order – No. 4/2006– to further limit the sulphur content of commercial light diesel oil for car use from no more than 0.05% (500ppm) to under 0.005%(50ppm) of its weight.	Macao government website
China, Taiwan	50	The allowable sulphur content in diesel fuel was gradually reduced from 5,000ppm in 1989 to 50 ppm in 2005. A 50ppm cap was put on gasoline fuel, effective 1 January 2007.  Gasoline vehicles: Phase 4 emission standards went into effect on 1 January 2008. Diesel engine vehicles: Phase 4 standards went into effect on 1 October 2006. Motorcycle standards: Phase 5 standards went into effect on 1 July 2007. inspection and maintenance programmes and clean vehicle technologies have been adopted	Taiwan environmental protection agency (EPA) website
Cook Islands			
Democratic People's Republic of Korea			
Fiji	500	In March 2007, the Cabinet approved the gazettal of the Trade Standards (Fuel Standards) Order 2007, which introduced mandatory standards for automotive diesel fuel and petrol fuel.	Fiji government website
India (nationwide)	500	The adopted emission standards (Bharat standards) correspond to Euro emission standards. The Indian government has issued a	The gazette of India, Part II-section 3 sub-section (i) of 15 <sup>th</sup> July

		notification to introduce Euro 3 emission standards (Fuel sulphur level at 350ppm) by April 1, 2010.	2008
India (metro cities)	350	The Indian government has issued a notification to introduce Euro IV standards and 50ppm sulphur fuel in eleven cities by April 1, 2010.	The gazette of India, Part II-section 3 sub-section (i) of 15 <sup>th</sup> July 2008
Indonesia	4,600/500	Adopted the Euro 2 emission standards in 2007, but sulphur levels are above 4000ppm due to high sulphur imports and standard not met. Small amounts of Euro 2 (500ppm) fuel available in Jakarta only in packages. Plan to adopt Euro 3 standard in 2016.	Ministry of Energy & Mineral Resources
Kiribati			
Lao People's Democratic Republic	2500	Imports from Thailand, Vietnam & Malaysia. Currently developing an environmental sustainable transport strategy where Fuel Quality Standards are to be addressed	PCFV workshop 4-5 <sup>th</sup> August, 2008.
Malaysia	500	Plans to adopt Euro 4 standards (50 ppm) by 2009-2012	CAI-Asia
Maldives			
Marshall Islands			
Micronesia, Fed. States of			
Mongolia	5,000		PCFV workshop 30-31 <sup>st</sup> July 2008
Myanmar			
Nauru			
Nepal	500	Imports from India so to confirm if at 500ppm for Fuel already. Vehicles at Euro 1 standards. Second Hand vehicle imports banned from 2005/6?	ADB
Niue			
Pakistan	5,000-7,000		CAI-Asia, cse.polyu.edu.hk
Palau			
Papua New Guinea			
Philippines	500	Implementing Euro II. Discussions ongoing on adopting Euro IV standards (50 ppm) by 2010	CAI-Asia
Republic of Korea	50	Plans to adopt Euro 4 standards (10-15 ppm) by 2010	CAI-Asia
Samoa			
Singapore	50		CAI-Asia
Solomon Islands			
Sri Lanka	500	Standards in place, no decisions to lower sulphur levels	CAI-Asia
Thailand	350	Plans to adopt Euro 4 standards (50 ppm) by 2010	CAI-Asia
Timor-Leste			
Tokelau			
Tonga			
Tuvalu			
Vanuatu			
Vietnam	500	Plans to lower sulphur levels to 150 ppm by 2010. Euro II emissions standards for new vehicle	CAI-Asia

		effected from 2005. No standards for in-use vehicles. Scrappage policy for 25yr old cars. Developing motorcycle standards.	
<b>Total: 41 countries</b>			

### References:

ADB: Asian Development Bank (2007): A Roadmap for Cleaner Fuels and Vehicles in Asia; second consultative Draft, 19 December, 2007

ASCOPE: Asian Council on Petroleum

CAI-Asia: [http://www.cleanairnet.org/caiasia/1412/articles-40711\\_SulfurDiesel.pdf](http://www.cleanairnet.org/caiasia/1412/articles-40711_SulfurDiesel.pdf); accessed on July 28, 2008

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Japan (JARI): <http://www.jari.jp/pdf/rt0806/07minato.pdf>; accessed on August 1, 2008

kuenselonline.com: <http://www.kuenselonline.com/modules.php?name=News&file=article&sid=8060>; accessed on July 31, 2008

Macao: <http://www.ambiente.gov.mo/tchinese/05/2006/en/index.html>; accessed on July 31, 2008

MW: Mike Walsh Global Clean Fuels Overview, Memo sent via email on June 26, 2005

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